



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/803,348

03/18/2004

Steve Ramsden

006401.00458

5819

22908 7590 06/02/2008

BANNER & WITCOFF, LTD.
TEN SOUTH WACKER DRIVE
SUITE 3000
CHICAGO, IL 60606

EXAMINER

STULII, VERA

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

06/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/803,348	Applicant(s) RAMSDEN, STEVE	
	Examiner VERA STULII	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-28, 30-32 and 35-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-28, 30-32, 35-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 42 objected to because of the following informalities: the claim is dependent from the canceled claim 33. Appropriate correction is required.

Claims 1-12, 14-28, 30-32, 35-39 recite the word "hydrolyzate". Claims 40-42 recite the word "hydrolyzate". The use of this term is inconsistent. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12, 14-28, 30-32, 35-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13, 29, 33 and 35 are also rendered indefinite for the recitation of the phrase "inactivating alcohol concentration". The metes and bounds of the term are not apparent, and are not clearly set forth in the specification.

Claims 25-26 are rendered indefinite for the recitation of the phrase "compromise flavor". It is not clear as to how the flavor could be compromised.

In claim 5, it is suggested to use present tense instead of past tense ("are removed").

Claim 36 recites the limitation "the alcohol content" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, 8-12, 14-25, 27-28, 30-31, 35-37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt, Jr. (US 4,073,947) in view of THE PRACTICAL BREWER.

In regard to claim 1, 21, 23, 35 and 39, Whitt, Jr. discloses "a non-distilled beer-type beverage is produced from a wort prepared from the hydrolyzed starch" (Abstract). Whitt, Jr. also discloses carbohydrate profile of hydrolyzed (converted) starch: glucose—4.7%, maltose—57.5% and triose—12.6% (Col. 3 lines 57-64). Whitt, Jr. also discloses use of yeast (Col. 2 lines 12-13). Whitt, Jr. also discloses protein hydrolyzate and a source of ammonium ion as a soluble nitrogenous yeast nutrient source (Col. 4 lines 45, 64-65). Whitt, Jr. also discloses soy flour (soy extract) as a protein hydrolyzate source (Col. 5-6 Table 1). Whitt, Jr. also discloses that produced beverage contains "about 7.5-7.6 percent alcohol by weight, which is considerably higher than conventional commercial beers" (Col. 8 lines 13-15). Therefore, Witt, Jr. discloses elimination of conventional wort constituents, which is the applicant intention as well.

In regard to claims 1, 23 and 35, Witt, Jr. does not disclose an alcohol content of 10-15% by volume. However, Witt, Jr. discloses production of beer type beverage,

Art Unit: 1794

where such high alcohol content is not required. Whitt, Jr. also discloses that produced beverage contains "about 7.5-7.6 percent alcohol by weight, which is considerably higher than conventional commercial beers" (Col. 8 lines 13-15). Therefore, Witt Jr. et al discloses alcohol content of the fermented non-distilled beverage higher than traditionally obtained. As evidenced by THE PRACTICAL BREWER, "the traditional quantitative description of the brewery fermentation has been anaerobic process of yeast converting glucose to ethanol and carbon dioxide" (p. 160). THE PRACTICAL BREWER further teaches that "despite its complexity, fermentation is largely dependent upon three basic parameters, namely: the wort composition (nutrients for the yeast); the yeast itself; and the processing conditions (such as time, temperature, volume, pressure, vessel shape and size, agitation and currents in the fermenting wort)" (p. 161). THE PRACTICAL BREWER further teaches that "It is the skill and experience of the brewer in comprehending and making use of interactions of these parameters which determine the outcome of the beer, whether it be an ale or a lager, a low, medium-, or high-alcohol containing product, or a special flavored beer. Also, the amount of yeast to be harvested from the fermenter is dependent on a selected method of a production" (p.161). Therefore, one of ordinary skill in the art would have been motivated to modify Witt, Jr. and to vary processing conditions, amount and composition of wort, type and amounts of yeast in order to achieve desired alcohol content.

In regard to claims 35, 36 and 37, Whitt, Jr. discloses blending fermented beverage with relatively small amounts of conventional barley malt beers with which it is compatible (Col. 7 lines 59-63). Conventional barley malt beer serves as a flavoring

agent. Since alcohol content of fermented beverage is initially higher than alcohol content of conventional beers (see above), the alcoholic content of the blend is decreased.

In regard to claims 2, 4, and 24-25, Whitt, Jr. discloses filtration to remove the yeast and prevent autolysis which may contribute to undesirable flavors in the beer (Col. 8 lines 9-11).

In regard to claims 10, 15 and 31, Whitt, Jr. discloses addition of enzyme (glucoamylase) to the wort to permit nearly complete fermentation (Col. 2 lines 57-60).

In regard to claim 10, Whitt, Jr. discloses that “[I]f more body is desired, however, one may stop the conversion of carbohydrate to fermentable sugars at any desired point to give more dextrans and less fermentable sugar than indicated in the specific process now to be described” (Col. 2 lines 66-68, Col. 3 lines 1-2).

In regard to claim 14, Whitt, Jr. disclose that “the starch hydrolyzate can have a dextrose equivalent value greater than 50, such higher values being attainable by the use of alpha-1,6-glucosidase such as pullulanase and/or isoamylase in combination with beta-amylase if it is desired to increase maltose production” (Col. 2 lines 51-54).

In regard to claim 17, Whitt, Jr. discloses using beta-amylase (Col.3 lines 35-36).

In regard to claim 18, Whitt, Jr. discloses “a microbial, vegetable or animal protein hydrolyzate in an amount to provide about 0.10 to 0.50 milligram soluble nitrogen per milliliter” (Col.8 lines 62-65).

In regard to claim 19, Whitt, Jr. discloses that “[a] starch hydrolyzate having a dextrose equivalent (D.E.) value of less than 40 can be used if a beverage with more body is desired” (Col. 2 lines 46-49).

In regard to claim 20, Whitt, Jr. discloses “[t]he starch hydrolyzate useful in this invention generally has a dextrose equivalent value in the range of about 35 to 65” (Col. 2 lines 54-57).

In regard to claim 10, Witt, Jr. does not disclose that enzyme is present in an amount sufficient to sustain the level of fermentable carbohydrates in the fermentation mixture at a level of from 2-5% for at least 90% of the time of fermentation. One of the ordinary skill in the art would have been motivated to vary amount of enzyme in order to control duration of fermentation and achieve desired content of fermentable carbohydrates based on the desired body of the fermented beverage as taught by Whitt et al.

In regard to claims 11 and 30, Witt, Jr. does not disclose said starch hydrolyzate is a maltodextrin. However, Whitt, Jr. discloses providing more dextrans, than fermentable sugars if desired. One of the ordinary skill in the art would have been motivated to modify disclosure of Whitt, Jr. and employ maltodextrin in order to achieve desired body of the final fermented beverage as taught by Whitt, Jr. In regard to claim 12, it is noted that one of the ordinary skill in the art would also have been motivated to use various forms of starch hydrolyzate either solid or liquid syrup.

In regard to claim 3, Witt, Jr. does not disclose yeast being removed via centrifugation. However, Whitt, Jr. discloses filtration step in order to remove the yeast.

Both centrifugation and filtration are well known methods of wort clarification. One of the ordinary skill in the art would have been motivated to modify invention of Whitt et al and employ both centrifugation and filtration in order to achieve better yeast removal.

In regard to claim 16, Witt, Jr. does not disclose enzyme is a maltotriose-releasing enzyme. However, choice of enzyme would depend on the particular starch hydrolyzate carbohydrate profile. One of the ordinary skill in the art would have been motivated to vary types of enzymes depending on the desired carbohydrate profile of hydrolyzate.

In regard to claim 22, Witt, Jr. does not disclose diluting fermented beverage to an alcohol content of about 4% to about 6%. However, Witt, Jr. discloses blending fermented beverage with relatively small amounts of conventional barley malt beers with which it is compatible (Col. 7 lines 59-63). Since alcohol content of fermented beverage is initially higher than alcohol content of conventional beers (see above), the alcoholic content of the blend is decreased. One of the ordinary skill in the art would have been motivated to vary amount of conventional beer in order to achieve desired level of alcohol content, or organoleptical profile such as taste, aroma, etc.

In regard to claims 8-9 and 27-28, Witt, Jr. does not disclose the yeast is a *Saccharomyces* yeast. However, THE PRACTICAL BREWER disclose yeast used in brewing "can be classified as one or other of the two species of the genus *Saccharomyces*: *Saccharomyces cerevisiae* and *Saccharomyces uvarum* (formerly called *Saccharomyces carlsbergensis*)" (p.183). THE PRACTICAL BREWER disclose that *Saccharomyces cerevisiae*, which is used in ale and stout fermentation, and

Saccharomyces carlsbergensis used in lager brewing. THE PRACTICAL BREWER further teaches that all other types of yeast “have been associated with beer spoilage and are commonly called wild or non-culture yeasts” (p.184). THE PRACTICAL BREWER further teaches that the presence of “wild” yeasts in the brewery is considered a dangerous infection presenting a serious threat to beer quality (P. 184). Since Witt, Jr. et al teach production of a non-distilled beer-type beverage, and THE PRACTICAL BREWER teach that *Saccharomyces* is the only yeast genus used in brewing and that all other yeasts in the brewery are considered a dangerous infection presenting a serious threat to beer quality, one of the ordinary skill in the art would have been motivated to modify disclosure of Witt, Jr. that does not specify yeast used and to use *Saccharomyces* as the source of yeast for brewing. One of the ordinary skill in the art would have been motivated to do so, since using other yeasts in the brewery are considered a dangerous infection presenting a serious threat to beer quality.

Claims 5-7, 26, 32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt, Jr. (US 4,073,947) in view of in view of THE PRACTICAL BREWER and further in view of Draeger (US 2,206,719) and Dalglish (US4,156,025).

Whitt, Jr. s taken as cited above.

Whitt, Jr. also disclose producing a non-distilled beer-type alcoholic beverage with reduction in or elimination of conventional wort constituents (Col. 1 lines 7-11).

Witt, Jr. does not disclose treating the fermented beverage with carbon, decolorizing beverage and substantially removing salts and organic acids which compromise flavor of the fermented beverage. Witt, Jr. does not disclose ion-exchange filtration of the fermented beverage.

Draeger disclose production of "fermented liquor having as its base a fermented solution but none of its original natural taste or odor" (Col. 1 lines 4-7). Draeger discloses treating fermented solution with activated carbon "to remove substantially all of its original natural taste or odor" by adding carbon and the filtering (Col. 1 lines 18-22, Col. 3 lines 57-68). Draeger also discloses treating a fermented dextrose solution with activated carbon to produce "substantially tasteless extract" (Col. 4 Claim 2).

Dagleish discloses a method of removing haze precursors from light beer, comprises contacting the beverage with an ion-exchange resin material in hydrogen form to remove at least nearly all haze precursors (Col. 1 lines 45-49, Col. 4 Claim 1).

Since Witt, Jr. et al discloses producing a non-distilled beer-type alcoholic beverage with reduction in or elimination of conventional wort constituents using starch hydrolyzate, and Draeger discloses treating fermented solution with activated carbon "to remove substantially all of its original natural taste or odor" by adding carbon and then filtering, one of the ordinary skill in the art would have been motivated to modify disclosure of Whitt, Jr. et al and to treat fermented beverage with carbon in order to further eliminate conventional wort constituents and characteristics such as taste, odor, and color. One of the ordinary skill in the art would have been motivated to further perform ion-exchange filtration as disclosed by Dagleish in order to remove haze

precursors from fermented beverage and obtain clear beverage. Since both Whitt, Jr. and Draeger teach further mixing with flavoring/coloring solutions, one of the ordinary skill in the art would have been motivated to perform both steps of carbon-treatment and ion-exchange filtration to obtain clear odorless, colorless beverage that may serve as a base for various alcoholic beverages.

Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt, Jr. (US 4,073,947) in view of THE PRACTICAL BREWER and further in view of the Applicant's admission of the prior art.

In regard to claims 40-42, Witt, Jr. does not disclose a hydrolyzate of the granular starch from which fat and ash present in the granular starch have been removed. However, on page 5 of Specification, Applicant discloses commercially available starch hydrolyzate from which fat and ash has been removed. Therefore, Applicant is not the inventor of the starch hydrolyzate from which fat and ash has been removed. Since Witt, Jr. disclose "a non-distilled beer-type beverage is produced from a wort prepared from the hydrolyzed starch", one of ordinary skill in the art would have been motivated to use commercially available starch hydrolyzate product from which fat and ash has been removed. One of ordinary skill in the art would also have been motivated to do so in order to improve wort composition and to better control fermentation as taught by THE PRACTICAL BREWER.

Response to Arguments

Applicant's arguments filed 02/13/2008 have been fully considered but they are not persuasive.

On page 9 and 10 of the Reply to the Office action mailed 05/30/2007, Applicant states that "Witt was not concerned about rate limiting effects, nor with the preparation of an organoleptically -neutral fermented beverage". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., rate limiting effects and the preparation of an organoleptically -neutral fermented beverage) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further in this regard it is noted that Witt, Jr. discloses elimination of conventional wort constituents, which is the applicant intention as well.

On page 9 of the Reply, Applicant states that " Accordingly, Witt failed to reach the inactivating alcohol concentration specified in the present application and now claimed herein (10-15%)". In response to this argument, it is not clear whether Applicant refers to the alcohol content of the fermented beverage or to so-called "inactivating alcohol concentration" (see also rejection under 35 U.S.C. 112, second paragraph as stated above). In any case, in regard to the alcohol content of the fermented beverage, Applicant is referred to the Office action as stated above.

Regarding newly added claims 40-42 and ash and fat removal recitation, Applicant is referred to the Office action as stated above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERA STULII whose telephone number is (571)272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steve Weinstein/
Primary Examiner, Art Unit 1794

VS